



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

DATE: November 22, 2017

TO: Approved NCDOT Concrete Producers

FROM: Christopher A. Peoples, PE
State Materials Engineer

SUBJECT: Concrete Mix Design Certification Requirement

The revised NCDOT Concrete Mix Design Submittal Form 312U will become effective on January 1st, 2018. The updated form has been revised as follows:

- Removed unnecessary fields with regard to the new Concrete Mix Design Process
- Added required fields that were not clearly identified or were missing
- Changed some required fields to selectable and remaining fields to editable/fill-in
- Added ability to save the form when completely filled.
- Added a formula to the field for Maximum Water Cement Ratio

Please note that alterations to the 312U form are not permitted and only a Certified Concrete Mix Design Technician or an Engineer licensed by the State of North Carolina is permitted to design concrete mixes (Section 1000-1 of NCDOT Standard Specifications).

The grace period for any Concrete Mix Design Technician with an expired certification is between the expiration date and the next date a Concrete Mix Design Technician class is offered. Concrete Mix Design Technicians with expired certifications must renew their certifications before December 31st, 2018 in order to continue designing mixes used on NCDOT projects.

The approved revised 312U form will include the name of the technician and their Mix Design Certification number or name of the licensed engineer and their PE number. Mix designs submitted without the following will be rejected as incomplete:

- Producer's mix ID number
- Class of concrete
- Vibration and air entrainment status
- Laboratory test results of 7 and 28 day compressive strength
- Maximum water, slump, material properties, e.g. types/sizes, specific gravities etc.
- Name and certification number of person who designed the mix

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
MATERIALS AND TESTS UNIT
1563 MAIL SERVICE CENTER
RALEIGH, NC 27699-1563

Telephone: (919) 329-4000
Fax: (919) 733-8742
Customer Service: 1-877-368-4968

Location:
1801 BLUE RIDGE ROAD
RALEIGH, NC 27607

Website: www.ncdot.gov

Mix designs submitted using outdated 312U forms will be returned for resubmission. Please also note that mix designs in terms of saturated surface dry weights must be submitted for review and approval at least 35 days before proposed use (Section 1000-4 of NCDOT Standard Specifications).

Two new NCDOT Materials and Tests submittal forms, Form 312M and Form 312C, will also become effective for all future requests, beginning January 1st, 2018. Form 312M is a Mass Change Request form that will be used to make a change of producers or sources of materials in previously approved mix designs. If a major change needs to be made, Form 312U must be used and compressive strength test data must be submitted for review (Section 1000-1 of NCDOT Standard Specifications). Form 312C will be used to request copies of already approved mix designs. Instructions on how to complete both the revised Form 312U and the new Form 312M will be available on the Materials and Tests Unit website and may also be requested at concretedesigns@ncdot.gov.

If you have any questions or concerns, please contact Ben Chola at 919-329-4122 or concretedesigns@ncdot.gov.

cc: Caroline Sutton
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Division Construction Engineers
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Sam Frederick
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Attachments:
Form 312U
Form 312M
Form 312C